

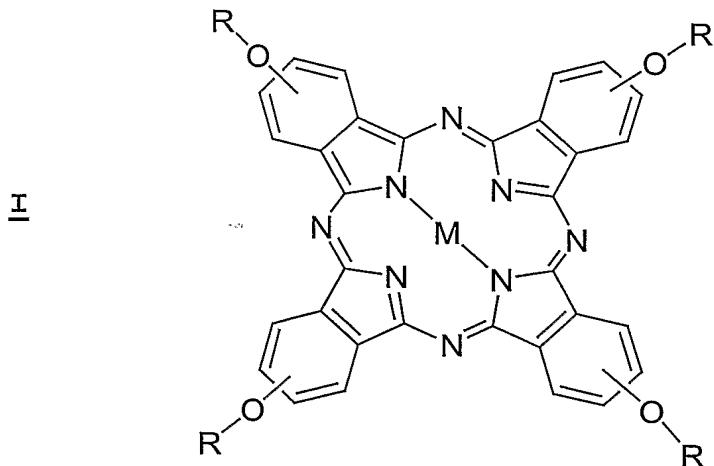
CLAIMS

1. A liquid crystalline tetra alkyloxy-substituted phthalocyanine derivative with the following structure I:

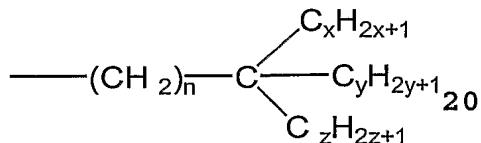
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wherein M is a metal or two atoms such as 2 H or 2 Li, and R is the followed branched aliphatic chain:



with n = 0 and x = 6-30

y = 6-30

z = 0-30

25 or n = 1 and x= 10-30

y = 6-30

z = 0-30

or n > 1 and x = 6-30

y = 6-30

30 z = 6-30.

2. The phthalocyanine derivative according to claim 1, where M is 2 H or 2 Li and n= 1, x= 12, y= 10 and z= 0.

3. The phthalocyanine derivative according to claim 1, where M is 2 H or 2 Li and n= 1, x= 10, y= 8 and z= 0.

4. The phthalocyanine derivative according to claim 1, where M is Copper (Cu), Zinc (Zn) Palladium (Pd), Ni (Nickel) or Pt (platinum) and n= 1, x= 12, y= 10 and z= 0.

5. The phthalocyanine derivative according to claim 1, where M is Copper (Cu), Zinc (Zn) Palladium (Pd), Ni (Nickel) or Pt (platinum) and n= 1, x= 10, y= 8 and z= 0.

6. Preparation process of the phthalocyanine derivative according to claim 1, comprising the following steps:

- 15 - reacting nitrophthalonitrile II in dimethyl sulfoxide (DMSO) with at least the molar amount of an inorganic base (lithium hydroxide (LiOH), potassium hydroxide (KOH), sodium hydroxide (NaOH), ...), and with at least the molar amount of an alcohol III, by reacting the mix up at 0 - 60°C during at least 10 hours;
- 20 - separating the alkoxyphthalonitrile IV from the resulting reaction medium comprising said compound, remaining solvents, unused reactants and by-products;
- 25 - reacting the alkoxyphthalonitrile IV in 1-pentanol or N,N-dimethylethanolamine with at least 2 times the molar amount of lithium (Li), by reacting the mix up at reflux during at least 2 hours;
- 30 - if the non-metal phthalocyanine (M = 2 H) is needed acetic acid is added to the reaction medium; if a metal phthalocyanine is needed, at least one time the theoretical amount of the corresponding metal salt (acetate, chloride, bromide, ...) is added to the reaction medium and left at reflux for at least 30 minutes; and

- separating the tetrasubstituted phthalocyanine I from the resulting reaction medium comprising said compound, remaining solvents, unused reactants and by-products.

7. Use of the tetra alkyloxy-substituted  
5 phthalocyanines according to claim 1 in electronic devices.

8. Use of the tetra alkyloxy-substituted phthalocyanines according to claim 1 in field effect transistors, sensors, memories, photovoltaic devices and photodiodes.